WELDING JOURNAL INDEX

VOLUME 60-1981

PUBLISHED BY THE AMERICAN WELDING SOCIETY, P.O. Box 351040, Miami, FL 33135

Part 1—WELDING JOURNAL

SUBJECT INDEX

Air Carbon Arc Gouging Process, Growth of the—W. J. Coughlin and G. Fayer IV, 26 to 31, (June)

Aircraft Wing Closure Beam, Sliding-Seal Electron Beam Slot Welding of an—R. W. Messler, Jr., 31 to 39, (Sept.).

Aluminum Microwave Assemblies, Application of Vacuum Brazing in Fabrication of—H. Qun, S. Dingyan and S. Suyun, 17 to 21, (Oct.).

Aluminum to Stainless Steel, Diffusion Welding of—E. R. Naimon, J. H. Doyle, C. R. Rice, D. Vigil and D. R. Salmsley, 17 to 20, (Nov.).

Aluminum Sections, Development of an Economical Vertical-GMA Process for Welding Thick—W. R. Reichelt, M. G. Hoy and J. W. Evancho, 24 to 29, (Oct.).

Application of Diffusion Welding in the USA—W. A. Owczarski and D. F. Paulonis, 22 to 33, (Feb.).

Application of Vacuum Brazing in Fabrication of Aluminum Microwave Assemblies—H. Qun, S. Dingyan and S. Suyun, 17-21, (Oct.).

*Art, Welding is Part of Abstract—30-31, (July).

*Asbestos, Welding Blanket Material Outperforms, 46 to 49, (Sept.).

Austenitic Stainless Steel, Effect of Flame Straightening Heat on—B. K. Vacker and R. J. Dolida, 25 to 27, (Aug.).

Automated Welding in Restricted Areas Using a Flexible Probe Gas Metal Arc Welding Torch—F. A. DeSaw and J. E. Rodgers, 17 to 22, (May).

*AWS President Repays a Debt of Learning, Former, 44 to 46, (Sept.).

*Brass Brazing Spurs Radiator Production, Switch From Silver to—50, (Mar.).

*Brazed Cooling Tubes Protect Space Shuttle Engines—37 and 38, (Oct.).

*Brazing Cuts Costs, Contamination in Food Industry Application, Nickel-Based—41 and 42, (Oct.).

Brazing Foils, Comparison of Gold-Nickel with Nickel Base Metallic Glass—D. Bose, A. Datta and N. DeCristofaro, 29 to 34, (Oct.).

Brazing in Fabrication of Aluminum Microwave Assemblies, Application of Vacuum—H. Qun, S. Dingyan and S. Suyun, 17 to 21, (Oct.).

Brazing, Joining Tantalum to Alumina by—D. D. Berger, 25 to 28, (Oct.).

Brazing of Gray Cast Iron—S. M. Riad and A. El-Naggar, 22 to 24, (Oct.).

Brazing of Sensors for High-Temperature Steam Instrumentation Systems—A. J. Moorhead, C. S. Morgan, J. J. Woodhouse and R. W. Reed, 17 to 28, (Apr.).

*Brazing Task, Preforms are Key to Touchy—38 and 39, (Oct.).

Bridge Girders, Tests of Electroslag-Welded—C. G. Schilling and K. H. Klippstein, 23 to 30, (Dec.).

Bridges, Recent Experiences with Electroslag Welded—A. Pense, J. W. Fisher and J. P. Wood, 33 to 42, (Dec.).

*Brinell Tester on the Job for 38 years, Portable—41, (Feb.).

*Campus Monument, Welding Student Teams with Local Business to Create—46 to 47, (Dec.).

Can Making, The Laser Welding of Steels Used in—J. Mazumder and W. M. Steen, 19 to 25, (June).

Cast Iron, Brazing of Gray—S. M. Riad and A. El-Naggar, 22 to 24, (Oct.).

Ceramic Backing, Hot Start-The Key to Successful Welding with—P. A. Blomquist, 17 to 22, (July).

*Ceramic Fiber Insulation Offers Four-Way Savings—38, (Apr.).

*Clamp Simplifies Fin Welding, Portable,—41, (Mar.).

*Clean Air, Welded Pipe Frames Help 'Support'—32 and 34, (July).

*Coating Improves Storage Tank Weld Quality—40, (Feb.).

Comparison of Gold-Nickel with Nickel Base Metallic Glass Brazing Foils—D. Bose, A. Datta and N. DeCristofaro, 29-34, (Oct.).

*Container Market, Welded Cans Take Growing Share of—29 and 30, (Aug.).

Cu-Ni to Steel, Ultrasonic Welding of—Thomas J. Kelly, 29 to 31, (Apr.).

*Cylinder Theft, Marking System Curbs Gas—46, (Nov.).

Development of an Economical Vertical-GMA Process for Welding Thick Aluminum Sections—W. R. Reichelt, M. G. Hoy and J. W. Evancho, 24 to 29, (Nov.).

Development of Thermal Spray Hard Surfacing, The—W. P. Clark, 27 to 29, (July).

Diffusion Welding of Aluminum to Stainless Steel—E. R. Naimon, J. H. Doyle, C. R. Rice, D. Vigil and D. R. Walmsley, 17 to 20, (Nov.).

Diffusion Welding in the USA, Application of—W. A. Owczarski and D. F. Paulonis, 22 to 33, (Feb.).

*Dinosaurs Bring the Past to Life, Welded—Amy C. Wilpon, 44 to 45, (Dec.).

*Dust Collectors Save Heat While Protecting Workers, 31 to 32, (May).

Effect of Flame Straightening Heat on Austenitic Stainless Steel—B. K. Vacker and R. J. Dolida, 25 to 27, (Aug.).

Electron Seam Slot Welding of an Aircraft Wing, Closure Beam,

*A Practical Welder article

Sliding-Seal – R. W. Messler, Jr., 31 to 39, (Sept.).
Electron Beam Welding Thick Section Precipitation-Hardening Steel – A. J. Turner, 18 to 26, (Jan.).
Electroslag-Welded Bridge Girders, Tests of – C. G. Schilling and K. H. Klippstein, 23 to 30, (Dec.).
Electroslag Welded Bridges, Recent Experiences with – A. Pense, J. W. Fisher and J. P. Wood, 33 to 42, (Dec.).
Electroslag Welds: Problems and Cures – A. Ramon, 17 to 21, (Dec.).
Flame Straightening Heat on Austenitic Stainless Steel, Effect of – B. K. Vacker and R. J. Dolida, 25 to 27, (Aug.).
Flexible Probe Gas Metal Arc Welding Torch, Automated Welding in Restricted Areas Using a – F. A. DeSaw and J. E. Rodgers, 17 to 22, (May).
*Former AWS President Repays a Debt of Learning, 44 to 46, (Sept.).
Fracture Toughness, Mechanical Testing of Welds: Part II – B4 Committee on Mechanical Testing of Welds, 37 to 40, (Mar.).
*Gas Control Cuts Cost of GMA, GTA Welding – 42 and 43, (Oct.).
Gas Metal Arc Welding of HK40 Steel – P. C. Loh, C. R. Loper, Jr., and J. T. Gregory, 31 to 36, (Nov.).
Gas Metal Arc Welding Torch, Automated Welding in Restricted Areas Using a Flexible Probe – F. A. DeSaw and J. E. Rodgers, 17 to 22, (May).
*GE Instructor Shares Welding Skills Around the World – 46 and 50, (Mar.).
Generator Tube-to-Tubesheet Joints, In-Bore Gas Tungsten Arc Welding of Steam – Harry Schwartzbert, 25 to 36, (Mar.).
Gouging Process, Growth of the Air Carbon Arc – W. J. Coughlin and G. Fayer IV, 26 to 31, (June).
Growth of the Air Carbon Arc Gouging Process – W. J. Coughlin and G. Fayer IV, 26 to 31, (June).
Hard Surfacing, The Development of Thermal Spray – W. P. Clark, 27 to 29, (July).
*Helium Use in Welding, Tips Offered for Safe – 48, (Dec.).
HK40 Steel, Gas Metal Arc Welding of – P. C. Loh, C. R. Loper, Jr., and J. T. Gregory, 31 to 36, (Nov.).
Hot Start-The Key to Successful SMA Welding with Ceramic Backing – P. A. Blomquist, 17 to 22, (July).
*HSLA Beam Flanges Cut Weight, Boost Capacity of Platform Trailers – 42, (Jan.).
In-Bore Gas Tungsten Arc Welding of Steam Generator Tube-to-Tubesheet Joints – Harry Schwartzbert, 25 to 36, (Mar.).
*Insert Rings for Root Pass Welds in Piping, When (and When Not) to Use – Ray Stout, 30 and 31, (May).
Instrumentation Systems, Brazing of Sensors for High-Temperature Steam – A. J. Moorhead, C. S. Morgan, J. J. Woodhouse and R. W. Reed, 17 to 28, (Apr.).
*Insulation Offers Four-Way Savings, Ceramic Fiber – 38, (Apr.).
International Welding Fair, Special Report: The 1981 – Jeff Weber, 38 to 42, (Nov.).
Japan, New Trends in Welding Research and Development in – T. Yoshida and T. Atsuta, 15 to 22, (Aug.).
Joining Tantalum to Alumina by Brazing – D. D. Berger, 25 to 28, (Oct.).
Laser Welding of Steels Used in Can Making, The – J. Mazumder and W. M. Steen, 19 to 25, (June).
*Leather Alternative Suits Welders Fine – 39 to 40, (Feb.).
*Lifelong Welder Just Can't Quit – 34, (Aug.).
*Marking System Curbs Gas Cylinder Theft, 46, (Nov.).
Mechanical Testing of Welds: Part I-Summary of Tension Testing of Welds – B4 Committee on Mechanical Testing of Welds, 33 to 37, (Jan.).
Mechanical Testing of Welds: Part II-Summary of Tension Testing of Welds – B4 Committee on Mechanical Testing of Welds, 34 to 37, (Feb.).
Mechanical Testing of Welds: Part II-Fracture Toughness – B4 Committee on Mechanical Testing of Welds, 37 to 40, (Mar.).
New Technique for Welding Tool Steel, A – P. S. Doyen and Q. R. Skrabec, Jr., 25 to 28, (Sept.).
New Trends in Welding Research and Development in Japan – T. Yoshida and T. Atsuta, 15 to 22, (Aug.).
Nickel Base Metallic Glass Brazing Foils, Comparison of Gold-Nickel with – D. Bose, A. Datta and N. DeCristofaro, 29 to 34, (Oct.).
*Nickel-Based Brazing Cuts Costs, Contamination in Food Industry Application – 41 to 42, (Oct.).
*Nitrogen Atmosphere Simplifies Brazing of Stainless Tubing – 33, (Aug.).
*Nonskid Deck Surface is Arc-Sprayed in Place – 37, (Apr.).
*Nuclear Components, Welding and Testing Techniques Assure Quality of Huge – 35 to 37, (Apr.).
Overseas, Shipyard Welding: How It's Done – John Mikurak, 41 to 44, (Mar.).
*Plasma Arc Welding Holds the Line on Cost – 49, (Nov.).
*Plastic Welding Screens Offer Safety, Flexibility 32, (May).
Plummer Educational Lecture: Welding Skills Training, 1980 Fred L. – E. G. Hornberger, 28 to 32, (Jan.).
*Portable Brinell Tester on the Job for 38 Years, 41, (Feb.).
*Portable Clamp Simplifies Fin Welding – 51, (Mar.).
Precipitation-Hardening Steel, Electron Beam Welding Thick Section – A. J. Turner, 18 to 26, (Jan.).
*Preforms are Key to Touchy Brazing Task – 38 to 39, (Oct.).
*Radiator Production, Switch from Silver to Brass Brazing Spurs – 50, (Mar.).
*Rail Car Plant Converts to Meet Customer Needs – 33 to 34, (June).
Recent Experiences with Electroslag Welded Bridges – A. Pense, J. W. Fisher and J. P. Wood – 33 to 42, (Dec.).
*Reelless Welding Wire System Increases Arc Time for Irrigation Equipment Manufacturer – 39 to 41, (Jan.).
Research and Development in Japan, New Trends in Welding – T. Yoshida and T. Atsuta, 15 to 22, (Aug.).
*Robot, Welding Lessons Come Easy to Programmed – 34, (June).
*Safe Helium Use in Welding, Tips Offered for – 48, (Dec.).
*Screens Offer Safety, Flexibility, Plastic Welding, 32, (May).
*Sculptor, Students Share Creative Welding Project – 41 to 42, (Jan.).
Sensors for High-Temperature Steam Instrumentation Systems, Brazing of – A. J. Moorhead, C. S. Morgan, J. J. Woodhouse and R. W. Reed, 17 to 28, (Apr.).
Shipyard Welding: How It's Done Overseas – John Mikurak, 40 to 44, (Mar.).
*Shock Absorbers an Hour, Weld-Assembly System Produces 1800 – 33, (Aug.).
*Skills Around the World, GE Instructor Shares Welding – 46 and 50, (Mar.).
Sliding-Seal Electron Beam Slot Welding of an Aircraft Wing Closure Beam – R. W. Messler, Jr., 31 to 39, (Sept.).
SMA Welding with Ceramic Backing, Hot Start-The Key to Successful – P. A. Blomquist, 17 to 22, (July).
*Smoke Remover 'De-Isolates' Welders – 36 to 37, (July).
*Solder Preform Scores Savings in Trumpet Manufacture – 29, (May).
*Space Shuttle Engines, Brazed Cooling Tubes Protect – 37 to 38, (Oct.).
Special Report: The 1981 International Welding Fair – Jeff

*A Practical Welder article

Weber, 38 to 42, (Nov.).
*Sprayed in Place, Nonskid Deck Surface is Arc – 37, (Apr.).
Stainless Steel, Diffusion Welding of Aluminum to – E. R. Naimon, J. H. Doyle, C. R. Rice, D. Vigil and D. R. Walmsley, 17 to 20, (Nov.).
*Stainless Tubing, Nitrogen Atmosphere Simplifies Brazing of – 33, (Aug.).
*Student Teams with Local Business to Create Campus Monument, Welding – 46 to 47, (Dec.).
*Submerged Arc Unit Boosts Valve Welding Efficiency – 36 to 38, (June).
*Switch from Silver to Brass Brazing Spurs Radiator Production – 50, (Mar.).

*Tank Weld Quality, Coating Improves Storage, 40, (Feb.).
Tantalum to Alumina by Brazing, Joining – D. D. Berger, 25 to 28, (Oct.).
Technician, The Welding – L. DeFreitas, 17 to 22, (Sept.).
Tension Testing of Welds, Mechanical Testing of Welds: Part I-Summary of – B4 Committee on Mechanical Testing of Welds, 33 to 37, (Jan.).
Tension Testing of Welds, Mechanical Testing of Welds: Part II-Summary of – B4 Committee on Mechanical Testing of Welds, 34 to 37, (Feb.).
Testing of Weld: Part II-Summary of Tension – B4 Committee on Mechanical Testing of Welds, 34 to 37, (Feb.).
Testing of Welds: Part I-Summary of Tension Testing of Welds, Mechanical – B4 Committee on Mechanical Testing of Welds, 33 to 37, (Jan.).
Tests of Electroslag-Welded Bridge Girders – C. G. Schilling and K. H. Klippstein – 23 to 30, (Dec.).
Thermal Spray Hard Surfacing, The Development of – W. P. Clark, 27 to 29, (July).
*Tips Offered for Safe Helium Use in Welding – 48, (Dec.).
Tool Steel, A New Technique for Welding – P. S. Doyen and Q. R. Skrabec, Jr., 25 to 28, (Sept.).
*Tools and Dies Can be Weld-Repaired – George Walberg, 45 to 46, (Nov.).
*Trailers, HSLA Beam Flanges Cut Weight, Boost Capacity of Platform – 42, (Jan.).
Training, 1980 Fred L. Plummer Educational Lecture: Welding Skills – E. G. Hornberger, 28 to 32, (Jan.).
Ultrasonic Welding of Cu-Ni to Steel – Thomas J. Kelly, 29 to 31, (Apr.).
*Valve Welding Efficiency, Submerged Arc Unit Boosts – 36 to 38, (June).
Vertical-GMA Process for Welding Thick Aluminum Sections, Development of an Economical – W. R. Reichelt, M. G. Hoy and J. W. Evancho, 24 to 29, (Nov.).
*Weld-Assembly System Produces 1800 Shock Absorbers an Hour – 33, (Aug.).
*Weld-Repaired, Tools and Dies Can be – George Walberg, 45 to 46, (Nov.).
*Welded Cans Take Growing Share of Container Market – 29 to 30, (Aug.).
*Welded Diesels Trim Costs from Merchant Fleet Operation, 41 to 42, (Sept.).
*Welded Dinosaurs Bring the Past to Life – Amy C. Wilpon, 44 to 45, (Dec.).
*Welded Pipe Frames Help 'Support' Clean Air – 32 and 34, (July).
*Welding and Testing Techniques Assure Quality of Huge Nuclear Components – 35 to 37, (Apr.).
Welding Arc Sounds – A. F. Manz, 23 to 27, (May).
*Welding Blanket Material Outperforms Asbestos, 46 to 49, (Sept.).
*Welding is Part of Abstract Art – 30 to 31, (July).
*Welding Lessons Come Easy to Programmed Robot – 34, (June).
*Welding School Plans, Implements Successful 'Road Show' – 41 to 42, (Feb.).
*Welding Student Teams with Local Business to Create Campus Monument – 46 to 47, (Dec.).
Welding Technician, The – L. DeFreitas, 17 to 22, (Sept.).
*When (and When Not) to Use Insert Rings for Root Pass Welds in Piping – Ray Stout, 30 to 31, (May).
*Wire System Increases Arc Time for Irrigation Equipment Manufacturer, Reelless Welding – 39 to 41, (Jan.).
*Women in Welding: Historical Precedent and Technical Mastery – V. Prah, 49 to 50, (Sept.).

AUTHOR INDEX

Atsuta, T. and Yoshida, T. – New Trends in Welding Research and Development in Japan, 15 to 22, (Aug.).
B4 Committee on Mechanical Testing of Welds – Mechanical Testing of Welds: Part I-Summary of Tension Testing of Welds, 33 to 37, (Jan.).
B4 Committee on Mechanical Testing of Welds – Mechanical Testing of Welds: Part II – Summary of Tension Testing of Welds, 34 to 37, (Feb.).
B4 Committee on Mechanical Testing of Welds – Mechanical Testing of Welds: Part III-Fracture Toughness, 37 to 40, (Mar.).
Berger, D. D. – Joining Tantalum to Alumina by Brazing, 25 to 28, (Oct.).
Blomquist, P. A. – Hot Start-The Key to Successful SMA Welding with Ceramic Backing, 17 to 22, (July).
Bose, A., Datta, A. and DeCristofaro, N. – Comparison of Gold-Nickel with Nickel Base Metallic Glass Brazing Foils, 29 to 34, (Oct.).
Clark, W. P. – The Development of Thermal Spray Hard Surfacing, 27 to 29, (July).
Coughlin, W. J. and Fayer, G. IV – Growth of the Air Carbon Arc Gouging Process, 26 to 31, (June).
Datta, A., DeCristofaro, N. and Bose, D. – Comparison of Gold-Nickel with Nickel Base Metallic Glass Foils, 29 to 34, (Oct.).
DeCristofaro, N., Bose, D. and Datta, A. – Comparison of Gold-Nickel with Nickel Base Metallic Glass, 29 to 34. (Oct.).
DeFreitas, L. – The Welding Technician, 17 to 22, (Sept.).
DeSaw, F. A. and Rodgers, J. E. – Automated Welding in Restricted Areas Using a Flexible Probe Gas Metal Arc Welding Torch, 17 to 22, (May).
Dingyan, S., Suyun, S. and Qun, H. – Application of Vacuum Brazing in Fabrication of Aluminum, 17 to 21, (Oct.).
Dolida, R. J. and Vacker, B. K. – Effect of Flame Straightening Heat on Austenitic Stainless Steel, 25 to 27, (Aug.).
Doyen, P. S. and Skrabec, Jr., Q. R. – A New Technique for Welding Steel, 25 to 28, (Sept.).
Doyle, J. H., Rice, C. R., Vigil, D., Naimon, E. R. and Walmsley, D. R. – Diffusion Welding of Aluminum to Stainless Steel, 17 to 20, (Nov.).
El-Naggar, A. and Riad, S. M. – Brazing of Gray Cast Iron, 22 to 24, (Oct.).
Evancho, J. W., Reichelt, W. R. and Hoy, M. G. – Development of an Economical Vertical-GMA Process for Welding Thick Aluminum Sections, 24 to 29, (Nov.).
Fayer, G. IV, and Coughlin, W. J. – Growth of the Air Carbon Arc Gouging Process, 26 to 31, (June).
Fisher, J. W., Wood, J. P. and Pense, A. – Recent Experiences

A Practical Welder article

with Electroslag Welded Bridges, 33 to 42, (Dec.).
Gregory, J. T., Loh, P. C. and Loper, C. R.—Gas Metal Arc Welding of HK40 Steel, 31 to 36, (Nov.).
Hornberger, E. G.—1980 Fred L. Plummer Educational Lecture: Welding Skills Training . . . A Comparison-Part II, 28 to 32, (Jan.).
Hoy, M. G., Evancho, J. W. and Reichelt, W. R.—Development of an Economical Vertical-GMA Process for Welding Thick Aluminum Sections, 24 to 29, (Nov.).
Kelly, T. J.—Ultrasonic Welding of Cu-Ni to Steel, 29 to 31, (Apr.).
Klippstein, K. H. and Schilling, C. G.—Tests of Electroslag-Welded Bridge Girders, 23 to 30, (Dec.).
Loh, P. C., Loper, Jr., C. R. and Gregory, J. T.—Gas Metal Arc Welding of HK40 Steel, 31 to 36, (Nov.).
Loper, Jr., C. R., Gregory, J. T. and Loh, P. C.—Gas Metal Arc Welding of HK40 Steel, 31 to 36, (Nov.).
Manz, A. F.—Welding Arc Sounds, 23 to 27, (May).
Mazumder, J. and Steen, W. M.—The Laser Welding of Steels Used in Can Making, 19 to 25, (June).
Messler, Jr., R. W.—Sliding-Seal Electron Beam Slot Welding of an Aircraft Wing Closure Beam, 31 to 39, (Sept.).
Mikurak, John—Shipyard Welding: How It's Done Overseas, 41 to 44, (Mar.).
Moorhead, A. J., Morgan, C. S., Woodhouse, J. J. and Reed, R. W.—Brazing of Sensors for High-Temperature Steam Instrumentation Systems, 17 to 28, (Apr.).
Morgan, C. S., Woodhouse, J. J., Reed, R. W. and Moorhead, A. J.—Brazing of Sensors for High-Temperature Steam Instrumentation Systems, 17 to 28, (Apr.).
Naimon, E. R., Doyle, J. H., Rice, C. R., Vigil, D. and Walmsley, D. R.—Diffusion Welding of Aluminum to Stainless Steel, 17 to 20, (Nov.).
Owczarski, W. A., and Paulonis, D. F.—Application of Diffusion Welding in the USA, 22 to 33, (Feb.).
Paulonis, D. F., and Owczarski, W. A.—Application of Diffusion Welding in the USA, 22 to 33, (Feb.).
Pense, A., Fisher, J. W. and Wood, J. P.—Recent Experiences with Electroslag Welded Bridges, 33 to 42, (Dec.).
*Prah, V.—Women in Welding: Historical Precedent and Technical Mastery, 49 to 50, (Sept.).
Qun, H., Dingyan, S. and Suyun, S.—Application of Vacuum Brazing in Fabrication of Aluminum Microwave Assemblies, 17 to 21, (Oct.).
Ramon, A.—Electroslag Welds: Problems and Cures, 17 to 21, (Dec.).
Reed, R. W., Moorhead, A. J., Morgan, C. S. and Woodhouse, J. J.—Brazing of Sensors for High-Temperature Steam Instrumentation Systems, 17 to 28, (Apr.).
Reichelt, W. R., Hoy, M. G. and Evancho, J. W.—Development of an Economical Vertical-GMA Process for Welding Thick Aluminum Sections, 24 to 29, (Nov.).
Riad, S. M. and El-Naggar, A.—Brazing of Gray Cast Iron, 22 to 24, (Oct.).
Rice, C. R., Vigil, D., Naimon, E. R., Doyle J. R. and Walmsley D. R.,—Diffusion Welding of Aluminum to Stainless Steel, 17 to 20, (Nov.).
Rodgers, J. E. and DeSaw, F. A.—Automated Welding in Restricted Areas Using a Flexible Probe Gas Metal Arc Welding Torch, 17 to 22, (May).
Schilling, C. G. and Klippstein, K. H.—Tests of Electroslag-Welded Bridge Girders, 23 to 30, (Dec.).
Schwartzbert, Harry—In-Bore Tungsten Arc Welding of Steam Generator Tube-to-Tubesheet Joints, 25 to 36, (Mar.).
Skrabec, Jr., Q. R. and Doyen, P. S.—A New Technique for Welding Tool Steel, 25 to 28, (Sept.).
Steen, W. M. and Mazumder, J.—The Laser Welding of Steels Used in Can Making, 19 to 25, (June).
*Stout, Ray—When (and When Not) to Use Insert Rings for Root Pass Welds in Piping, 30 to 31, (May).
Suyun, S., Qun, H. and Dingyan, S.—Application of Vacuum Brazing in Fabrication of Microwave Assemblies, 17 to 21, (Oct.).
Turner, A. J.—Electron Beam Welding Thick Section Precipitation-Hardening Steel, 18 to 26, (Jan.).
Vacker, B. K. and Dolida, R. J.—Effect of Flame Straightening Heat on Austenitic Stainless Steel, 25 to 27, (Aug.).
*Walberg, George—Tools and Dies Can be Weld-Repaired, 45 to 46, (Nov.).
Walmsley, D. R., Naimon, E. R., Doyle, J. H., Rice C. R. and Vigil, D.—Diffusion Welding of Aluminum to Stainless Steel, 17 to 20, (Nov.).
Weber, Jeff—Special Report: The 1981 International Welding Fair, 38 to 42, (Nov.).
*Wilpon, Amy C.—Welded Dinosaurs Bring the Past to Life, 44 to 45, (Dec.).
Wood, J. P., Pense, A. and Fisher, J. W.—Recent Experiences with Electroslag Welded Bridges, 33 to 42, (Dec.).
Woodhouse, J. J., Reed, R. W., Moorhead, A. J. and Morgan, C. S.—Brazing of Sensors for High-Temperature Steam Instrumentation Systems, 17 to 28, (Apr.).
Yoshida, T. and Atsuta, T.—New Trends in Welding Research and Development in Japan, 15 to 22, (Aug.).

*A Practical Welder article

Part 2—WELDING RESEARCH SUPPLEMENT

SUBJECT INDEX

A Comparative Evaluation of Laser and Gas Tungsten Arc Weldments in High Temperature Titanium Alloys—W. A. Baeslack III and C. M. Banas, 121-s to 130-s, (July).
Al-Mg-Si Alloys, Heat-Affected Zone Cracking of—N. F. Gittos and M. H. Scott, 95-s to 103-s, (June).
Alloys, A Comparative Evaluation of Laser and Gas Tungsten Arc Weldments in High Temperature Titanium—W. A. Baeslack III and C. M. Banas, 121-s to 130-s, (July).
Alloying Elements on the Sigma Phase Formation in the 18-8 Weld Metals, The Effect of—J. Wegrzyn and A. Klimpel, 146-s to 154-s, (Aug.).
Aluminum Sheet, Mechanism for Critical Magnesium Diffusion in Vacuum Brazing of—Peter Vernia, 194-s to 198-s, (Oct.).
An Evaluation of Factors Significant to Lamellar Tearing—E. J. Kaufmann, A. W. Pense and R. D. Stout, 43-s to 49-s, (Mar.).
Arc Welds, Process Modifications to Improve HAZ Toughness in High Deposition—E. G. Signes and J. C. Baker, 57-s to 62-s,

(Mar.).
Austenitic Electrodes, Weld Pool Segregation During the Welding of Low Alloy Steels with—F. Ornath, J. Soudry, B. Z. Weiss and I. Minkoff, 227-s to 230-s, (Nov.).
Austenitic Stainless Steel, Technical Note: Comment on the Transformation $\delta \rightarrow \gamma$ by a Massive Mechanism in—N. Suutala, T. Takalo and T. Moisio, 92-s to 93-s, (May).
Austenitic Stainless Steel Welds, Ferrite Morphology and Variations in Ferrite Content in—S. A. David, 63-s to 71-s, (Apr.).
Brazing of Aluminum Sheet, Mechanism for Critical Magnesium Diffusion in Vacuum—Peter Vernia, 194-s to 198-s, (Oct.).
Brazing of Copper Plated Carbon Steel in a Zinc Vapor, Vapor Phase—T. Osawa, 215-s to 218-s, (Nov.).
Brazing, The Use of TETIG Diagrams in High Temperature—R. Johnson, 185-s to 193-s, (Oct.).
Charpy Tests to Determine Onset of Upper-Shelf Energy, Use of Instrumented—D. A. Canonico, W. J. Stelzman, R. G. Berggren and R. K. Nanstad, 85-s to 91-s, (May).
Constitutive Equation for the Critical Energy Input during Electroslag Welding, A—R. H. Frost, G. R. Edwards and M. D. Rheinlander, 1-s to 6-s, (Jan.).
Consumable Guide Electroslag Welds—Its Sources and Significance, Hydrogen in—G. Lowe, S. R. Bala and L. Malik, 258-s to 268-s, (Dec.).
Copper Cylinder in Molten Tin under Dynamic Conditions, Dissolution of—Y. Shoji, S. Uchida and T. Ariga, 19-s to 24-s, (Jan.).
Copper Joints, Effect of Solder Thickness and Joint Overlap on the Electrical Resistance of Soldered—W. J. Reichenecker, 199-s to 201-s, (Oct.).
Copper Plated Carbon Steel in a Zinc Vapor, Vapor Phase Brazing of—T. Osawa, 215-s to 218-s, (Nov.).
Correlation of Properties and Microstructure in Welded Ti-6Al-6V-2Sn—K. C. Wu, 219-s to 226-s, (Nov.).
Crack Arrest Fracture Toughness in Welded 9% Nickel Steels Used in Cryogenic Storage Tanks, The Measurement of—R. M. Bruscato, 113-s to 120-s, (July).
Cracking of Al-Mg-Si Alloys, Heat-Affected Zone—N. F. Gittos and M. H. Scott, 95-s, to 103-s, (June).
Cracking in HSLA Pipeline Steels, Hydrogen-Assisted—R. Vasudevan, R. D. Stout and A. W. Pense, 155-s to 168-s, (Sept.).
Cryogenic Service, Mechanical Properties of Weldments in Experimental Fe-12Mn-0.2Ti and Fe-12Mn-1Mo-0.2Ti Alloys for—J. R. Stephens, J. H. Devletian and W. R. Witzke, 177-s to 184-s, (Sept.).
Cryogenic Storage Tanks, The Measurement of Crack Arrest Fracture Toughness in Welded 9% Nickel Steels Used In—R. M. Bruscato, 113-s to 120-s, (July).
Defects in High-Frequency Electric Resistancy Welding, The Mechanisms of Formation of Weld—H. Haga, K. Aoki and T. Sato, 104-s to 109-s, (June).
Determination of Diffusible Hydrogen in Weldments by the RPI Silicone-Oil Extraction Method—E. F. Nippes, D. J. Ball and W. J. Gestal, Jr., 50-s to 56-s, (Mar.).
Dissolution of Copper Cylinder in Molten Tin under Dynamic Conditions—Y. Shoji, S. Uchida and T. Ariga, 19-s to 24-s, (Jan.).
Effect of Alloying Elements on the Sigma Phase Formation in the 18-8 Weld Metals, The—J. Wegrzyn and A. Klimpel, 146-s to 154-s, (Aug.).
Effect of Selenium on GTAW Fusion Zone Geometry—C. R. Heiple and J. R. Roper, 143-s to 145-s, (Aug.).
Effect of Solder Thickness and Joint Overlap on the Electrical Resistance of Soldered Copper Joints—W. J. Reichenecker, 199-s to 201-s, (Oct.).
Effect of Testing Procedures in Implant Test Results, The—A. J. Bryhan, 169-s to 176-s, (Sept.).
Electron Beam Weldability of Advanced Titanium Alloys—R. W. Messler, Jr., 79-s to 84-s, (May).
Electroslag Process, Fabrication Steel Safely Using the—D. N. Shackleton, Part I-244-s to 251-s, (Dec.).
Electroslag Weld Metal to Hydrogen, Sensitivity of—L. N. Pussegoda and W. R. Tyson, 252-s to 257-s, (Dec.).
Electroslag Welding, A Constitutive Equation for the Critical Energy Input during—R. H. Frost, G. R. Edwards and M. D. Rheinlander, 1-s to 6-s, (Jan.).
Electroslag Weldments, Fracture Resistance of 4-inch Thick A36 and A588 Grade A—J. F. Sovak, 269-s to 272-s, (Dec.).
Electroslag Welds, Ferrite Vein Cracking in—J. A. Davenport, B. N. Qian, A. W. Pense and R. D. Stout, 237-s to 243-s, (Dec.).
Electroslag Welds—Its Sources and Significance, Hydrogen in Consumable Guide—G. Lowe, S. R. Bala and L. Malik, 258-s to 268-s, (Dec.).
Elements on the Sigma Phase Formation in the 18-8 Weld Metals, The Effect of Alloying—J. Wegrzyn and A. Klimpel, 146-s to 154-s, (Aug.).
Fabricating Steel Safely Using the Electroslag Process—D. N. Shackleton, 244-s to 251-s, (Dec.).
Fatigue Resistance of Plasma and Oxygen Cut Steel, The—N-J Ho, F. V. Lawrence, Jr. and C.J. Altstetter, 231-s to 236-s, (Nov.).
Ferrite Morphology and Variations in Ferrite Content in Austenitic Stainless Steel Welds—S. A. David, 63-s to 71-s, (Apr.).
Ferrite Morphology in High Molybdenum Stainless Steel—M. J. Cieslak and W. F. Savage, 131-s to 134-s, (July).
Ferritic Stainless Steels, Weldability of—D. H. Kah and D. W. Dickinson, 135-s to 142-s, (Aug.).
Ferrite Vein Cracking in Electroslag Welds—J. A. Davenport, B. N. Qian, A. W. Pense and R. D. Stout, 237-s to 243-s, (Dec.).
Fracture Behavior in Ferrite-Free Stainless Steel Welds in Liquid Helium—T. A. Whipple, H. J. McHenry and D. T. Read, 72-s to 78-s, (Apr.).
Fracture Resistance of 4-inch Thick A36 and A588 Grade A Electroslag Weldments—J. F. Sovak, 269-s to 272-s, (Dec.).
Fracture Toughness in Welded 9% Nickel Steels Used in Cryogenic Storage Tanks, The Measurement of Crack Arrest—R. M. Bruscato, 113-s to 120-s, (July).
Fracture Toughness of Steel-Aluminum Deformation Welds, The—C. E. Albright, 207-s to 214-s, (Nov.).
Gas Tungsten Arc Weldments in High Temperature Titanium Alloys, A Comparative Evaluation of Laser and—W. A. Baeslack III and C. M. Banas, 121-s to 130-s, (July).
Geometry, Effect of Selenium on GTAW Fusion Zone—C. R. Heiple and J. R. Roper, 143-s to 145-s, (Aug.).
GTAW Fusion Zone Geometry, Effect of Selenium on—C. R. Heiple and J. R. Roper, 143-s to 145-s, (Aug.).
HAZ Toughness in High Deposition Arc Welds, Process Modifications to Improve—E. G. Signes and J. C. Baker, 57-s to 62-s, (Mar.).
Heat-Affected Zone Cracking of Al-Mg-Si Alloys—N. F. Gittos and M. H. Scott, 95-s to 103-s, (June).
Heat Transfer and Penetration Mechanisms in GMA and Plasma-GMA Welding—W. G. Essers and R. Walter, 37-s to 42-s, (Feb.).
Helium, Fracture Behavior of Ferrite-Free Stainless Steel Welds in Liquid—T. A. Whipple, H. I. McHenry and D. T. Read, 72-s to 78-s, (Apr.).
HSLA Pipeline Steels, Hydrogen-Assisted Cracking in—R. Vasudevan, R. D. Stout and A. W. Pense, 155-s to 168-s, (Sept.).
Hydrogen-Assisted Cracking in HSLA Pipeline Steels—R. Vasudevan, R. D. Stout and A. W. Pense, 155-s to 168-s, (Sept.).
Hydrogen in Weldments by the RPS Silicone-Oil Extraction Method, Determination of Diffusible—E. F. Nippes, D. J. Ball and W. J. Gestal, Jr., 50-s to 56-s, (Mar.).

Hydrogen, Sensitivity of Electroslag Weld Metal to—L. N. Pussegoda and W. R. Tyson, 252-s to 257-s, (Dec.).
Hydrogen in Consumable Guide Electroslag Welds—Its Sources and Significance—G. Lowe, S. R. Bala and L. Malik, 258-s to 268-s, (Dec.).
Implant Test Results, The Effect of Testing Procedures in—A. J. Bryhan, 169-2 to 176-s, (Sept.).
Lamellar Tearing, An Evaluation of Factors Significant to—E. J. Kaufmann, A. W. Pense and R. D. Stout, 43-s to 49-s, (Mar.).
Laser and Gas Tungsten Arc Weldments in High Temperature Titanium Alloys, A Comparative Evaluation of—W. A. Baeslack III and C. M. Banas, 121-s to 130-s, (July).
Low Alloy Steels with Austenitic Electrodes, Weld Pool Segregation During the Welding of—F. Ornath, J. Soudry, B. Z. Weiss and I. Minkoff, 227-s to 230-s, (Nov.).
Magnesium Diffusion in Vacuum Brazing of Aluminum Sheet, Mechanism for Critical—Peter Vernia, 194-s to 198-s, (Oct.).
Measurement of Crack Arrest Fracture Toughness in Welded 9% Nickel Steels Used in Cryogenic Storage Tanks—R. M. Bruscato, 113-s to 120-s, (July).
Mechanism for Critical Magnesium Diffusion in Vacuum Brazing of Aluminum Sheet—Peter Vernia, 194-s to 198-s, (Oct.).
Mechanisms of Formation of Weld Defects in High-Frequency Electric Resistance Welding, The—H. Haga, K. Aoki and T. Sato, 104-s to 109-s, (June).
Microstructure in Welded Ti-6Al-6V-2Sn, Correlation of Properties and—K. C. Wu, 219-s to 226-s, (Nov.).
*Mechanical Properties of Weldments in Experimental Fe-12Mn-0.2Ti and Fe-12Mn-1Mo-0.2Ti Alloys for Cryogenic Service, by J. R. Stephens, J. H. Devletian and W. R. Witzke, 177-s to 184-s, (Sept.).
Molybdenum Stainless Steel, Ferrite Morphology in High—M. J. Cieslak and W. F. Savage, 131-s to 134-s, (July).
Morphology in High Molybdenum Stainless Steel, Ferrite—M. J. Cieslak and W. F. Savage, 131-s to 134-s, (July).
Nickel Steels Used in Cryogenic Storage Tanks, The Measurement of Crack Arrest Fracture Toughness in Welded 9%—R. M. Bruscato, 113-s to 120-s, (July).
Oil Extraction Method, Determination of Diffusible Hydrogen in Weldments by the RPI—E. F. Nippes, D. J. Ball and W. J. Gestal, Jr., 50-s to 56-s, (Mar.).
Oxygen Cut Steel, The Fatigue Resistance of Plasma and—N-J Ho, F. V. Lawrence, Jr. and C. J. Altstetter, 231-s to 236-s, (Nov.).
Penetration Mechanisms with GMA and Plasma-GMA Welding, Heat Transfer and—W. G. Essers and R. Walter, 37-s to 42-s, (Feb.).
Pipeline Steels, Hydrogen-Assisted Cracking in HSLA—R. Vasudevan, R. D. Stout and A. W. Pense, 155-s to 168-s, (Sept.).
Plasma and Oxygen Cut Steel, The Fatigue Resistance of—N-J Ho, F. V. Lawrence, Jr. and C. J. Altstetter, 231-s to 236-s, (Nov.).
Plasma-GMA Welding, Heat Transfer and Penetration Mechanisms with GMA and—W. G. Essers and R. Walter, 37-s to 42-s, (Feb.).
Pool Configuration on Heat-Affected Zone Shape, Technical Note: Effect of Weld—S. S. Glickstein and E. Friedman, 110-s to 112-s, (June).
Premium Rail Steels with Reference to V-N Steels, A Weldability Testing Procedure for—Z. Paley, J. NG-Yelim and P. Martin, 7-s to 11-s, (Jan.).
Process Modifications to Improve HAZ Toughness in High Deposition Arc Welds—E. G. Signes and J. C. Baker, 57-s to 62-s, (Mar.).
Properties and Microstructure in Welded Ti-6Al-6V-2Sn, Correlation of—K. C. Wu, 219-s to 226-s, (Nov.).
Radiation-Induced Swelling in Stainless Steel Weld Metal—W. F. Savage, E. F. Nippes and G. J. Bruck, 25-s to 36-s, (Feb.).
Repair-Welded Titanium Sheets, Residual Stress Measurements in—K. C. Wu, 12-s to 18-s, (Jan.).
Residual Stress Measurements in Repair-Welded Titanium Sheets—K. C. Wu, 12-s to 18-s, (Jan.).
Resistance Welding, The Mechanisms of Formation of Weld Defects in High-Frequency Electric—H. Haga, K. Aoki and T. Sato, 104-s to 109-s, (June).
RPI Silicone-Oil Extraction Method, Determination of Diffusible Hydrogen in Weldments by the—E. F. Nippes, D. J. Ball and W. J. Gestal, Jr., 50-s to 56-s (Mar.).
Scanning the Solderability of a Surface—G. Becker, 202-s to 206-s, (Oct.).
Selenium on GTAW Fusion Zone Geometry, Effect of—C. R. Heiple and J. R. Roper, 143-s to 145-s, (Aug.).
Sensitivity of Electroslag Weld Metal to Hydrogen—L. N. Pussegoda and W. R. Tyson, 252-s to 257-s, (Dec.).
Shape, Technical Note: Effect of Weld Pool Configuration on Heat-Affected Zone—S. S. Glickstein and E. Friedman, 110-s to 112-s, (June).
Sigma Phase Formation in the 18-8 Weld Metals, The Effect of Alloying Elements on the—J. Wegrzyn and A. Klimpel, 146-s to 154-s, (Aug.).
Solderability of a Surface, Scanning the—G. Becker, 202-s to 206-s, (Oct.).
Soldered Copper Joints, Effect of Solder Thickness and Joint Overlap on the Electrical Resistance of—W. J. Reichenecker, 199-s to 201-s, (Oct.).
Stainless Steel, Ferrite Morphology in High Molybdenum—M. J. Cieslak and W. F. Savage, 131-s to 134-s, (July).
Stainless Steel Weld Metal, Radiation-Induced Swelling in—W. F. Savage, E. F. Nippes and G. J. Bruck, 25-s to 36-s, (Feb.).
Stainless Steel Welds, Ferrite Morphology and Variations in Ferrite Content in Austenitic—S. A. David, 63-s to 71-s, (Apr.).
Stainless Steel Welds in Liquid Helium, Fracture Behavior in Ferrite-Free—T. A. Whipple, H. J. McHenry and D. T. Read, 72-s to 78-s, (Apr.).
Stainless Steels, Weldability of Ferritic—D. W. Kah and D. W. Dickinson, 135-s to 142-s, (Aug.).
Steel-Aluminum Deformation Welds, The Fracture Toughness of—C. E. Albright, 207-s to 214-s, (Nov.).
Swelling in Stainless Steel Weld Metal, Radiation-Induced—W. F. Savage, E. F. Nippes and G. J. Bruck, 25-s to 36-s, (Feb.).
Tanks, The Measurement of Crack Arrest Fracture Toughness in Welded 9% Nickel Steels Used in Cryogenic Storage—R. M. Bruscato, 113-s to 120-s, (July).
Technical Note: Comment on the Transformation $\delta \rightarrow \gamma$ by a Massive Mechanism in Austenitic Stainless Steel—N. Suutala, T. Takola and T. Moisio, 92-s to 93-s, (May).
Technical Note: Effect of Weld Pool Configuration on Heat-Affected Zone Shape—S. S. Glickstein and E. Friedman, 110-s to 112-s, (June).
Temperature Titanium Alloys, A Comparative Evaluation of Laser and Gas Tungsten Arc Weldments in High—W. A. Baeslack III and C. M. Banas, 121-s to 130-s, (July).
TETIG Diagrams in High Temperature Brazing, The Use of—R. Johnson, 185-s to 193-s, (Oct.).
Ti-6Al-6V-2Sn, Correlation of Properties and Microstructure in Welded—K. C. Wu, 219-s to 226-s, (Nov.).
Tin under Dynamic Conditions, Dissolution of Copper Cylinder in Molten—Y. Shoji, S. Uchida and T. Ariga, 19-s to 24-s, (Jan.).
Titanium Alloys, A Comparative Evaluation of Laser and Gas Tungsten Arc Weldments in High Temperature—W. A. Baeslack III and C. M. Banas, 121-s to 130-s, (July).
Titanium Alloys, Electron Beam Weldability of Advanced—R. W. Messler, Jr., 79-s to 84-s, (May).
Titanium Sheets, Residual Stress Measurements in Repair Welded—K. C. Wu, 12-s to 18-s, (Jan.).
Tungsten Arc Weldments in High Temperature Titanium Alloys, A Comparative Evaluation of Laser and Gas—W. A. Baeslack III and C. M. Banas, 121-s to 130-s, (July).
Upper-Shelf Energy, Use of Instrumented Charpy Tests to

Determine Onset of—D. A. Canonico, W. J. Stelzman, R. G. Berggren and R. K. Nanstad, 85-s to 91-s, (May).
Use of Instrumented Charpy Tests to Determine Onset of Upper-Shelf Energy—D. A. Canonico, W. J. Stelzman, R. G. Berggren and R. K. Nanstad, 85-s to 91-s, (May).
Use of TETIG Diagrams in High Temperature Brazing, The—R. Johnson, 185-s to 193-s, (Oct.).
V-N Steels, A Weldability Testing Procedure for Premium Rail Steels with Reference to—Z. Paley, J. NG-Yelim and P. Martin, 7-s to 11-s, (Jan.).
Vapor Phase Brazing of Copper Plated Carbon Steel in a Zinc Vapor—T. Osawa, 215-s to 218-s, (Nov.).
Weld Pool Segregation During the Welding of Low Alloy Steels with Austenitic Electrodes—F. Ornath, J. Soudry, B. Z. Weiss and I. Minkoff, 227-s to 230-s, (Nov.).
Weldability of Ferritic Stainless Steels—D. H. Kah and D. W. Dickinson, 135-s to 142-s, (Aug.).
Weldability Testing Procedure for Premium Rail Steels with Reference to V-N Steels—Z. Paley, J. NG-Yelim and P. Martin, 7-s to 11-s, (Jan.).

AUTHOR INDEX

Albright, C. E.—The Fracture Toughness of Steel-Aluminum Deformation Welds, 207-s to 214-s, (Nov.).
Altstetter, C. J., Ho, N-J and Lawrence, Jr., F. V.—The Fatigue Resistance of Plasma and Oxygen Cut Steel, 231-s to 236-s, (Nov.).
Aoki, K., Sato, T., and Haga, H.—The Mechanisms of Formation of Weld Defects in High-Frequency Electric Resistance Welding, 104-s to 109-s, (June).
Ariga, T., Shoji, Y., and Uchida, S.—Dissolution of Copper Cylinder in Molten Tin under Dynamic Conditions, 19-s to 24-s, (Jan.).
Baeslack, W. A. III and Banas, C. M.—A Comparative Evaluation of Laser and Gas Tungsten Arc Weldments in High Temperature Titanium Alloys, 121-s to 130-s, (July).
Baker, J. C. and Signes, E. G.—Process Modifications to Improve HAZ Toughness in High Deposition Arc Welds, 57-s to 62-s, (Mar.).
Bala, S. R., Malik, L. and Lowe, G.—Hydrogen in Consumable Guide Electroslag Welds—Its Sources and Significance, 258-s to 268-s, (Dec.).
Ball, D. J., Gestal, W. J. Jr., and Nippes, E. F.—Determination of Diffusible Hydrogen in Weldments by the RPI Silicone-Oil Extraction Method, 50-s to 56-s, (Mar.).
Banas, C. M. and Baeslack, W. A. III—A Comparative Evaluation of Laser and Gas Tungsten Arc Weldments in High Temperature Titanium Alloys, 121-s to 130-s, (July).
Becker, G.—Scanning the Solderability of a Surface, 202-s to 206-s, (Oct.).
Berggren, R. G., Nanstad, R. K., Canonico, D. A., and Stelzman, W. J.—Use of Instrumented Charpy Tests to Determine Onset of Upper-Shelf Energy, 85-s to 91-2, (May).
Bruck, G. J., Savage, W. F., and Nippes, E. F.—Radiation-Induced Swelling in Stainless Steel Weld Metal, 25-s to 36-s, (Feb.).
Bruscato, R. M.—The Measurement of Crack Arrest Fracture Toughness in Welded 9% Nickel Steels Used in Cryogenic Storage Tanks, 113-s to 120-s, (July).
Bryhan, A. J.—The Effect of Testing Procedures in Implant Test Results, 169-s to 176-s, (Sept.).
Canonico, D. A. Stelzman, W. J., Berggren, R. G. and Nanstad, R. K.—Use of Instrumented Charpy Tests to Determine Onset of Upper-Shelf Energy, 85-s to 91-s, (May).
Cieslak, M. J. and Savage, W. F.—Ferrite Morphology in High Molybdenum Stainless Steel, 131-s to 134-s, (July).
Davenport, J. A., Qian, B. N., Pense, A. W. and Stout, R. D.—Ferrite Vein Cracking in Electroslag Welds, 237-s to 243-s, (Dec.).
David, S. A.—Ferrite Morphology and Variations in Ferrite Content in Austenitic Stainless Steel Welds, 63-s to 71-s, (Apr.).
Devletian, J. H., Witzke, W. R. and Stephens, J. R.—Mechanical Properties of Weldments in Experimental Fe-12Mn-0.2Ti and Fe-12Mn-1Mo-0.2Ti Alloys for Cryogenic Service, 177-s to 184-s, (Sept.).
Dickinson, D. W. and Kah, D. H.—Weldability of Ferritic Stainless Steels, 135-s to 142-s, (Aug.).
Edwards, G. R., Frost, R. H. and Rheinlander, M. D.—A Constitutive Equation for the Critical Energy Input during Electroslag Welding, 1-s to 6-s, (Jan.).
Essers, W. G. and Walter, R.—Heat Transfer and Penetration Mechanisms with GMA and Plasma-GMA Welding, 37-s to 42-s, (Feb.).
Friedman, E. and Glickstein, S. S.—Technical Note: Effect of Weld Pool Configuration on Heat-Affected Zone Shape, 110-s to 112-s, (June).
Frost, R. H., Edwards, G. R. and Rheinlander, M. D.—A Constitutive Equation for the Critical Energy Input during Electroslag Welding, 1-s to 6-s, (Jan.).
Gestal, W. J., Jr., Nippes, E. F. and Ball, D. J.—Determination of Diffusible Hydrogen in Weldments by the RPI Silicone-Oil Extraction Method, 50-s to 56-s, (Mar.).
Gittos, N. F. and Scott, M. H.—Heat-Affected Zone Cracking of Al-Mg-Si Alloys, 95-s to 103-s, (June).
Glickstein, S. S. and Friedman, E.—Technical Note: Effect of Weld Pool Configuration on Heat-Affected Zone Shape, 110-s to 112-s, (June).
Haga, H., Aoki, K. and Sato, T.—The Mechanisms of Formation of Weld Defects in High-Frequency Electric Resistance Welding, 104-s to 109-s, (June).
Heiple, C. R. and Roper, J. R.—Effect of Selenium on GTAW Fusion Zone Geometry, 143-s to 145-s, (Aug.).
Ho, N-J, Lawrence, Jr., F. V. and Altstetter, C. J.—The Fatigue Resistance of Plasma and Oxygen Cut Steel, 231-s to 236-s, (Nov.).
Johnson, R.—The Use of TETIG Diagrams in High Temperature, 185-s to 193-s, (Oct.).
Kah, D. H. and Dickinson, D. W.—Weldability of Ferritic Stainless Steels, 135-s to 142-s, (Aug.).
Kaufmann, J., Pense, A. W. and Stout, R. D.—An Evaluation of Factors Significant to Lamellar Tearing, 43-s to 49-s, (Mar.).
Klimpel, A. and Wegrzyn, J.—The Effect of Alloying Elements on the Sigma Phase Formation in the 18-8 Weld Metals, 146-s to 154-s, (Aug.).
Lawrence, Jr., F. V., Altstetter, C. J. and Ho, N-J—The Fatigue Resistance of Plasma and Oxygen Cut Steel, 231-s to 236-s, (Nov.).
Lowe, G., Bala, S. R. and Malik, L.—Hydrogen in Consumable Guide Electroslag Welds—Its Sources and Significance, 258-s to 268-s, (Dec.).
Malik, L., Lowe, G. and Bala, S. R.—Hydrogen in Consumable Guide Electroslag Welds—Its Sources and Significance, 258-s to 268-s, Dec.).
Martin, P., Paley, Z. and NG-Yelim, J.—A Weldability Testing Procedure for Premium Rail Steels with Reference to V-N Steels, 7-s to 11-s, (Jan.).
McHenry, H. I., Read, D. T. and Whipple, T. A.—Fracture Behavior of Ferrite-Free Stainless Steel Welds in Liquid Helium, 72-s to 78-s, (Apr.).
Messler, R. W., Jr.—Electron Beam Weldability of Advanced

Titanium Alloys, 79-s to 84-s, (May).
Minkoff, I., Ornath, F., Soudry, J. and Weiss, B. Z. – Weld Pool Segregation During the Welding of Low Alloy Steels with Austenitic Electrodes, 227-s to 230-s, (Nov.).
Moisio, T., Suutala, N. and Takalo, T. – Technical Note: Comment on the Transformation $\delta \rightarrow \gamma$ by a Massive Mechanism in Austenitic Stainless Steel, 92-s to 93-s, (May).
Nanstad, R. K., Canonico, D. A., Stelzman, W. J. and Berggren, R. G. – Use of Instrumented Charpy Tests to Determine Onset of Upper-Shelf Energy, 85-s to 91-s, (May).
Nippes, E. F., Bruck, G. J. and Savage, W. F. – Radiation-Induced Swelling in Stainless Steel Weld Metal, 25-s to 36-s, (Feb.).
Nippes, E. F., Ball, D. J. and Gestal, W. J., Jr. – Determination of Diffusible Hydrogen in Weldments by the RPI Silicone-Oil Extraction Method, 50-s to 56-s, (Mar.).
NG-Yelim, J., Paley, Z. and Martin, P. – A Weldability Testing Procedure for Premium Rail Steels with Reference to V-N Steels, 7-s to 11-s, (Jan.).
Ornath, F., Soudry, J., Weiss, B. Z. and Minkoff, I. – Weld Pool Segregation During the Welding of Low Alloy Steels with Austenitic Electrodes, 227-s to 230-s, (Nov.).
Osawa, T. – Vapor Phase Brazing of Copper Plated Carbon Steel in a Zinc Vapor, 215-s to 218-s, (Nov.).
Paley, Z., NG-Yelim, J. and Martin, P. – A Weldability Testing Procedure for Premium Rail Steels with Reference to V-N Steels, 7-s to 11-s, (Jan.).
Pense, A. W., Stout, R. D. and Kaufmann, E. J. – An Evaluation of Factors Significant to Lamellar Tearing, 43-s to 49-s, (Mar.).
Pense, A. W., Stout, R. D., Davenport, J. A. and Qian, B. N. – Ferrite Vein Cracking in Electroslag Welds, 237-s to 243-s, (Dec.).
Pense, A. W., Vasudevan, R. and Stout, R. D. – Hydrogen-Assisted Cracking in HSLA Pipeline Steels, 155-s to 168-s, (Sept.).
Pussegoda, L. N. and Tyson, W. R. – Sensitivity of Electroslag Weld Metal to Hydrogen, 252-s to 257-s, (Dec.).
Qian, B. N., Pense, A. W., Stout, R. D. and Davenport, J. A. – Ferrite Vein Cracking in Electroslag Welds, 237-s to 243-s, (Dec.).
Read, D. T., Whipple, T. A. and McHenry, H. I. – Fracture Behavior of Ferrite-Free Stainless Steel Welds in Liquid Helium, 72-s to 78-s, (Apr.).
Reichenecker, W. J. – Effect of Solder Thickness and Joint Overlap on the Electrical Resistance of Soldered Copper Joints, 199-s to 201-s, (Oct.).
Rheinlander, M. D., Frost, R. H. and Edwards, G. R. – A Constitutive Equation for the Critical Energy Input during Electroslag Welding, 1-s to 6-s, (Jan.).
Roper, J. R. and Heiple, C. R. – Effect of Selenium on GTAW Fusion Zone Geometry, 143-s to 145-s, (Aug.).
Sato, T., Haga, H. and Aoki, K. – The Mechanisms of Formation of Weld Defects in High-Frequency Electric Resistance Welding, 104-s to 109-s, (June).
Savage, W. F. and Cieslak, M. J. – Ferrite Morphology in High Molybdenum Stainless Steel, 131-s to 134-s, (July).
Savage, W. F., Nippes, E. F. and Bruck, G. J. – Radiation-Induced Swelling in Stainless Steel Weld Metal, 25-s to 36-s, (Feb.).
Scott, M. H. and Gittos, N. F. – Heat-Affected Zone Cracking of Al-Mg-Si Alloys, 95-s to 103-s, (June).
Shackleton, D. N. – Fabricating Steel Safely Using the Electroslag Process, Part I-244-s to 251-s, (Dec.).
Shoji, Y., Uchida, S. and Ariga, T. – Dissolution of Copper Cylinder in Molten Tin under Dynamic Conditions, 19-s to 24-s, (Jan.).
Signes, E. G. and Baker, J. C. – Process Modifications to Improve HAZ Toughness in High Deposition Arc Welds, 57-s to 62-s, (Mar.).
Soudry, J., Weiss, B. Z., Minkoff, I. and Ornath, F. – Weld Pool Segregation During the Welding of Low Alloy Steels with Austenitic Electrodes, 227-s to 230-s, (Nov.).
Sovak, J. F. – Fracture Resistance of 4-inch Thick A36 and A588 Grade A Electroslag Weldments, 269-s to 272-s, (Dec.).
Stelzman, W. J., Canonico, D. A., Berggren, R. G. and Nanstad, R. K. – Use of Instrumented Charpy Tests to Determine Onset of Upper-Shelf Energy, 85-s to 91-s, (May).
Stephens, J. R., Devletian, J. H. and Witzke, W. R. – Mechanical Properties of Weldments in Experimental Fe-12Mn-0.2Ti and Fe-12Mn-1Mo-0.2Ti Alloys for Cryogenic Service, 177-s to 184-s, (Sept.).
Stout, R. D., Pense, A. W. and Vasudevan, R – Hydrogen-Assisted Cracking in HSLA Pipeline Steels, 155-s to 168-s, (Sept.).
Stout, R. D., Davenport, J. A., Qian, B. N. and Pense, A. W. – Ferrite Vein Cracking in Electroslag Welds, 237-s to 243-s, (Dec.).
Stout, R. D., Kaufmann, E. J. and Pense, A. W. – An Evaluation of Factors Significant to Lamellar Tearing, 43-s to 49-s, (Mar.).
Suutala, N., Takalo, T. and Moisio, T. – Technical Note: Comment on the Transformation $\delta \rightarrow \gamma$ by a Massive Mechanism in Austenitic Stainless Steel, 92-s to 93-s, (May).
Takalo, T., Moisio, T. and Suutala, N. – Technical Note: Comment on the Transformation $\delta \rightarrow \gamma$ by a Massive Mechanism in Austenitic Stainless Steel, 92-s to 93-s, (May).
Tyson, W. R. and Pussegoda, L. N. – Sensitivity of Electroslag Weld Metal to Hydrogen, 252-s to 257-s, (Dec.).
Uchida, S., Shoji, Y. and Ariga, T. – Dissolution of Copper Cylinder in Molten Tin under Dynamic Conditions, 19-s to 24-s, (Jan.).
Vasudevan, R., Stout, R. D. and Pense, A. W. – Hydrogen-Assisted Cracking in HSLA Pipeline Steels, 155-s to 168-s, (Sept.).
Vernia, Peter – Mechanism for Critical Magnesium Diffusion in Vacuum Brazing of Aluminum Sheet, 194-s to 198-s, (Oct.).
Walter, R. and Essers, W. G. – Heat Transfer and Penetration Mechanisms with GMA and Plasma-GMA Welding, 37-s to 42-s, (Feb.).
Wegrzyn, J. and Klimpel, A. – The Effect of Alloying Elements on the Sigma Phase Formation in the 18-8 Weld Metals, 146-s to 154-s, (Aug.).
Weiss, B. Z., Minkoff, I., Ornath, F. and Soudry, J. – Weld Pool Segregation During the Welding of Low Alloy Steels with Austenitic Electrodes, 227-s to 230-s, (Nov.).
Whipple, T. A., McHenry, H. I. and Read, D. T. – Fracture Behavior of Ferrite-Free Stainless Steel Welds in Liquid Helium, 72-s to 78-s, (Apr.).
Witzke, W. R., Stephens, J. R. and Devletian, J. H. – Mechanical Properties of Weldments in Experimental Fe-12Mn-0.2Ti and Fe-12Mn-1Mo-0.2Ti Alloys for Cryogenic Service, 177-s to 184-s, (Sept.).
Wu, K. C. – Correlation of Properties and Microstructure in Welded Ti-6Al-6V-2Sn, 219-s to 226-s, (Nov.).